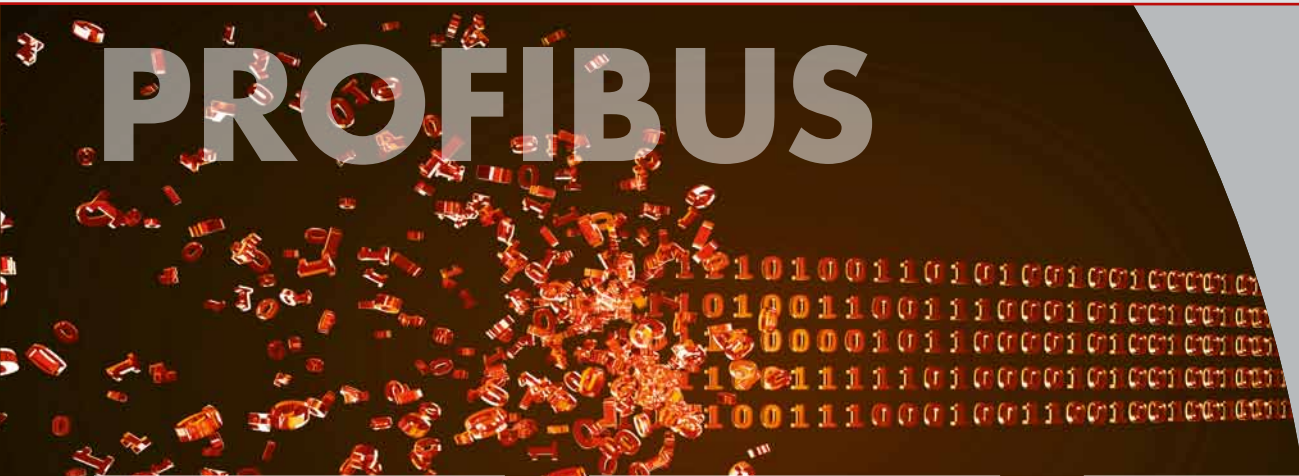


# Intrinsically Safe Communication



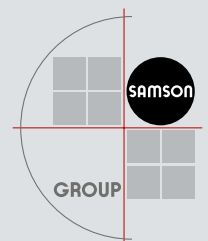
# PROFIBUS



- Type 3965-DPplus Valve Driver Module
- Type 3965-DP Solenoid Valve Island



*Where Innovation is Tradition*

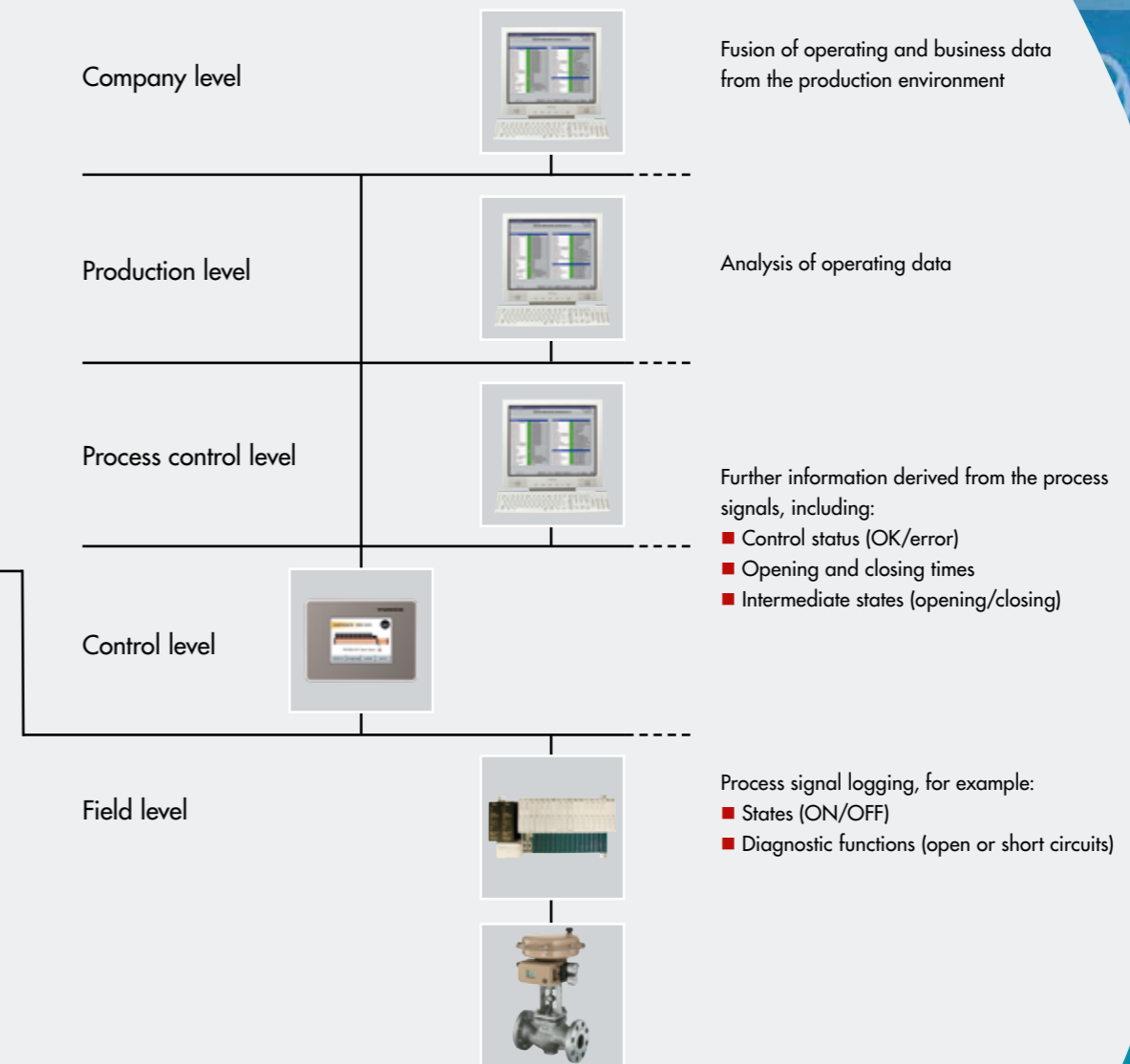
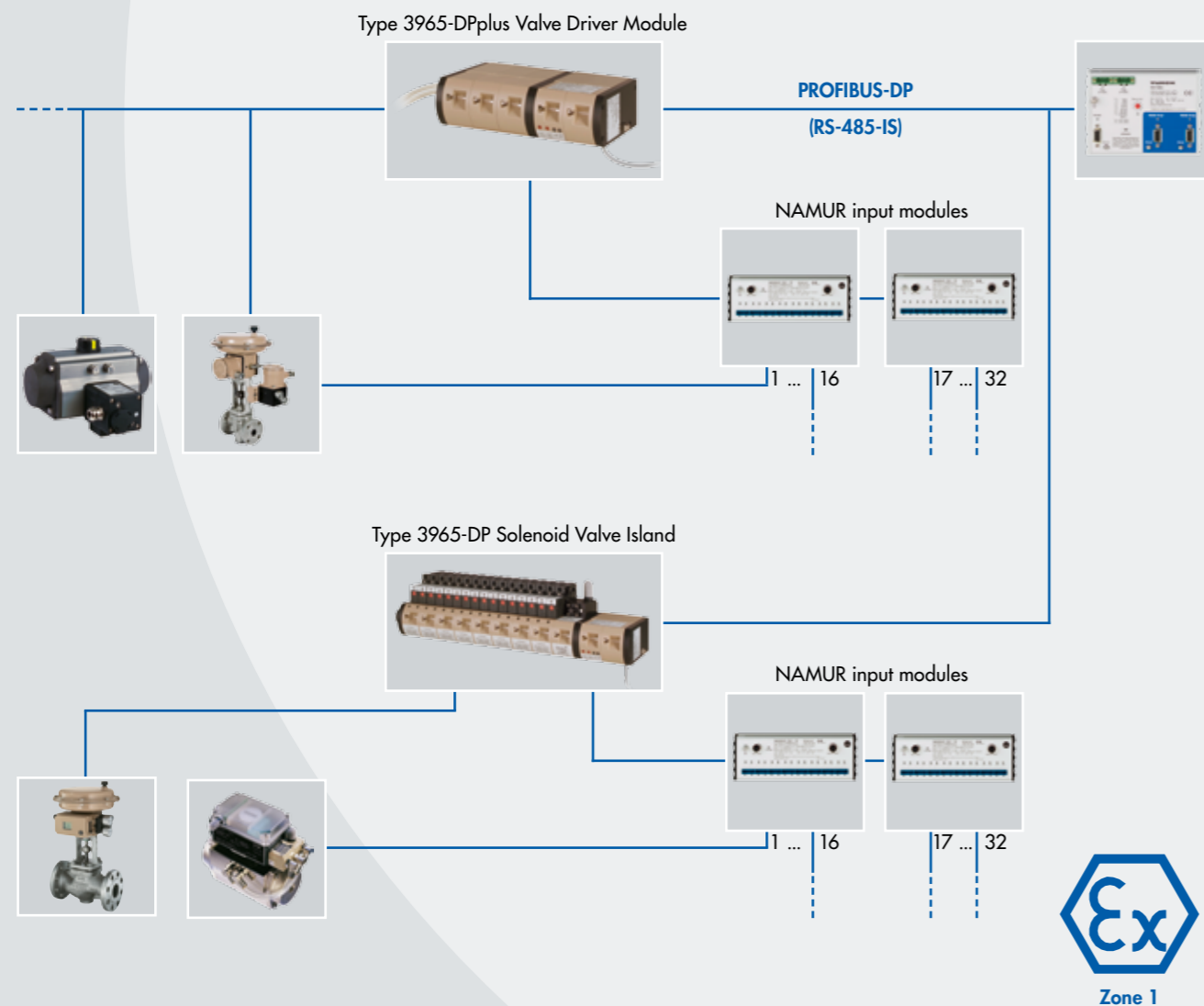


# Added Value Through Integration

The PROFIBUS-DP interface enable communication with process control systems using the standard PROFIBUS-DP. Per device, up to 16 low-power solenoid valves can be controlled and up to 32 sensor feedback signals can be read over the fieldbus.

The Type 3965-DPplus Valve Driver Modules are used to operate external solenoid valves even with large  $K_{VS}$  coefficients.

The Type 3965-DP Solenoid Valve Island includes inline-mounted booster valves with smaller  $K_{VS}$  coefficients in a flexible modular design. Both devices are compact control units with integrated power supply and gateway, allowing them to be used as stand-alone devices on site. Thanks to their low heat generation, they are well-suited for installation in control cabinets and for intrinsically safe applications.

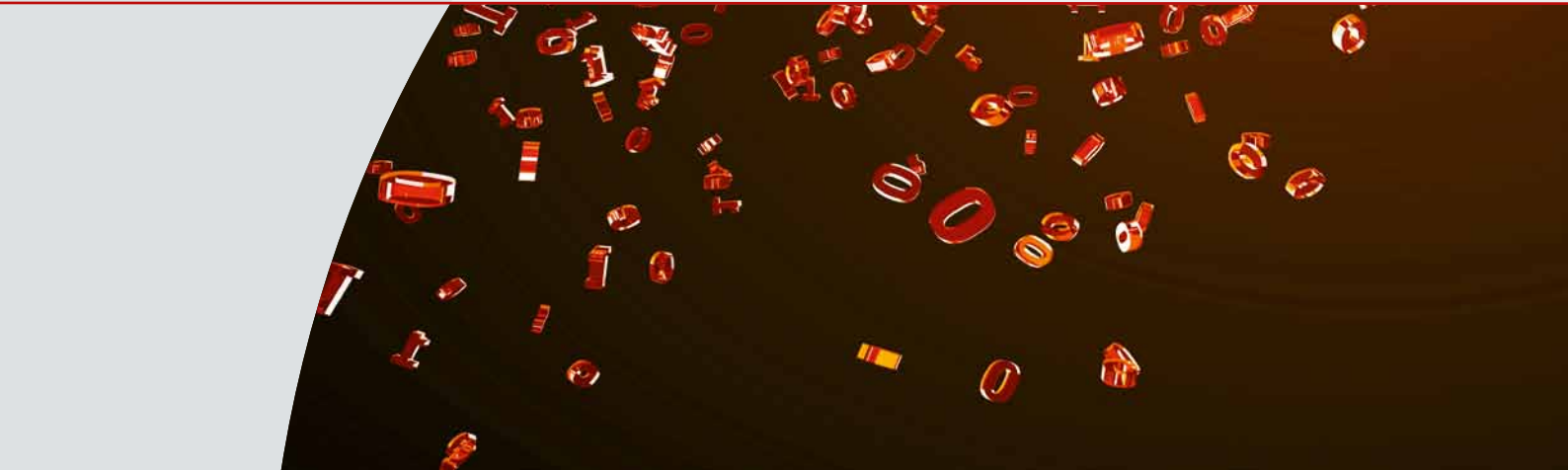


## Transparency from the field level all the way up to the company level

The Type 3965-DPplus Valve Driver Module and Type 3965-DP Solenoid Valve Island integrate solenoid valves and limit switches into the process control system using the PROFIBUS-DP protocol. This allows the state of the field devices to be polled without delay. This powerful communication is the basis for the consistent flow of data from the field level up to the production and company levels.

## Benefits gained by exchanging data

The integrated functions in the Type 3965-DPplus Valve Driver Module and Type 3965-DP Solenoid Valve Island allow the states and diagnostic data of field units to be polled over the PROFIBUS-DP network, which, for example, considerably increases the efficiency of plant operation and reduces plant shutdown times and maintenance costs.



## Specifications of PROFIBUS-DP

- PROFIBUS-DP intrinsically safe according to PROFIBUS RS-485-IS User and Installation Guideline
- Max. transmission rate 1.5 Mbit/s
- Max. 31 PROFIBUS-DP modules per segment
- Max. 16 switching functions per PROFIBUS-DP module, up to 492 control actions per segment
- Max. 32 NAMUR input signals per PROFIBUS-DP module, up to 992 feedback signals per segment (optionally using separate input modules that can be retrofitted)
- Integrated diagnostic functions
- Exchange of I/O and diagnostic data completely using the DPV0 protocol, only DP-Master Class 1 required
- Power supply with increased safety (Ex e), regardless of the number of connected devices per segment
- ATEX explosion-protection certification
  - Ex i for solenoid valve control
  - Ex em for power supply



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